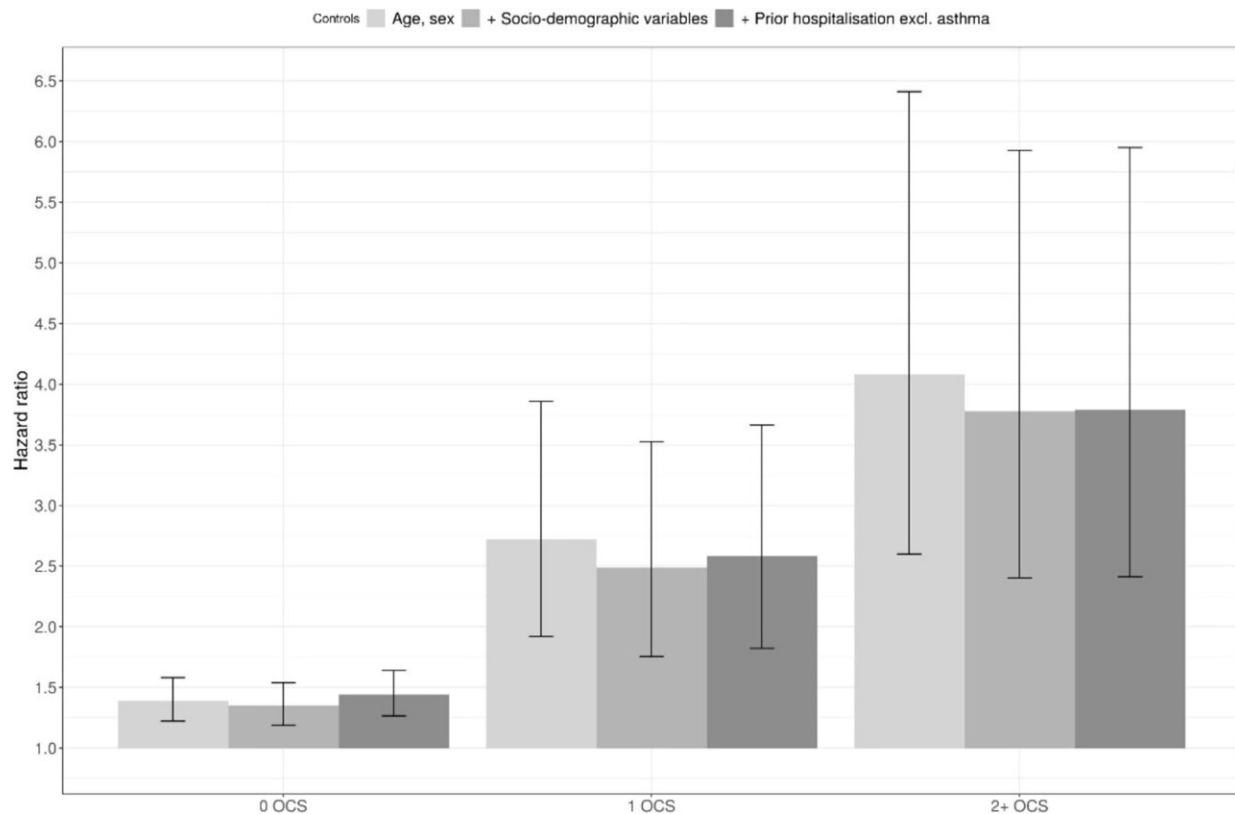


Study shows COVID risk greater for those with poorly controlled or severe asthma

March 31 2022, by Kerry Noble



Adjusted HRs of COVID-19 hospitalization in children for different asthma status compared with children with no asthma. HRs of death COVID-19 hospitalization compared with people with no asthma, obtained from Cox regression models. Sociodemographic factors include, region, ethnicity, quintile of the Index of Multiple Deprivation. OCS, oral corticosteroids. Credit: *Thorax* (2022). DOI: 10.1136/thoraxjnl-2021-218629

Children and adults with asthma that is severe or poorly controlled are at greater risk of hospitalization with COVID-19, a major study shows.

The research, from Imperial College London, the University of Edinburgh and the Office for National Statistics, also shows that children and adults with mild or well controlled asthma are not at an increased risk of becoming seriously ill with COVID-19.

The study, published in the journal *Thorax*, is the biggest of its kind to examine the relationship between asthma and COVID-19 and it includes data on almost 80% of adults and more than 75% of 12- to 17-year-olds in England.

The researchers used anonymized information from the 2011 census of England combined with general practice data, hospital statistics and registered deaths between January 2020 and September 2021.

In adults, they found that people who were prescribed a low-dose steroid inhaler for asthma were no more likely to be hospitalized or die with COVID-19 than people who do not have asthma. However, adults who were taking a medium- or high-dose steroid inhaler were around 50% more likely to need hospital treatment for COVID-19, compared to people without asthma. They were also more likely to die of COVID-19.

Among children aged 12–17, the risk of needing hospital treatment for COVID-19 was more than doubled in those who had been prescribed a course of oral steroids for asthma. The risk was three to four times higher for children who had been prescribed two or more courses of oral steroids.

COVID-19 and asthma

Asthma is a long-term condition that usually requires ongoing treatment. It affects millions of people in the UK alone.

Professor Jennifer Quint, study author, from the National Heart and Lung Institute at Imperial College London said: "Since the [pandemic](#) began, there have been several studies looking at the risks of COVID-19 for people with asthma, but the findings have not always been clear or consistent. Research like ours, that uses large amounts of data, can help unpick any patterns of risk.

"We've found that in children and adults with asthma that is mild or well-controlled with low-dose medication there is no greater risk than in people without asthma. But adults and children with severe or poorly controlled asthma are more likely to need [hospital treatment](#), and in adults there is an increased risk of COVID-19-related death.

"Understanding these differences will be important to help people with asthma while COVID-19 persists around the world. Adults can take precautions such as getting vaccinated against COVID-19 and taking their asthma treatment. For children, the risk is still relatively low, but their [asthma](#) should be managed as well as possible."

More information: Ted Dolby et al, Relationship between asthma and severe COVID-19: a national cohort study, *Thorax* (2022). [DOI: 10.1136/thoraxjnl-2021-218629](#)

Provided by Imperial College London

Citation: Study shows COVID risk greater for those with poorly controlled or severe asthma (2022, March 31) retrieved 15 July 2023 from <https://medicalxpress.com/news/2022-03-covid-greater-poorly-severe-asthma.html>

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